

2009-02-20-1254-0321PUS1_ST25
SEQUENCE LISTING

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<120> NUCLEIC ACID CONSTRUCT CONTAINING FULL LENGTH GENOME OF HUMAN
HEPATITIS C VIRUS ... AND METHOD OF PRODUCING HEPATITIS C VIRUS
PARTICLE

<130> 1254-0321PUS1

<140> US 10/589,902
<141> 2006-08-17

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<151> 2004-02-20

<160> 26

<170> PatentIn version 3.5

<210> 1
<211> 340
<212> RNA
<213> Hepatitis C virus

<220>
<221> misc_feature
<222> (1)..(340)
<223> 5' non-translated region of hepatitis C virus genomic RNA derived
from JFH-1 clone

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ccccucccg ggagagccau aguggucugc ggaaccggug aguacaccgg aaugccggg 180
aagacugggu ccuuucuuagg auaaaccac ucuaugcccg gccauuuggg cgugcccccg 240
caagacugcu agccgaguag cguuggguug cgaaaggccu ugugguacug ccugauaggg 300
cgcuugcgag ugccccggga ggucucguag accgugcacc 340

<210> 2
<211> 573
<212> RNA
<213> Hepatitis C virus

<220>
<221> misc_feature
<222> (1)..(573)

<223> core protein-coding sequence of hepatitis C virus genomic RNA derived from JFH-1 clone

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 gacguuaagu ucccggggcg cgccagauc guuggcgag uauacuuguu gccgcgcagg 120
 ggccccaggu ugggugugcg cacgacaagg aaaacuucgg agcgguccca gccacguggg 180
 agacgccagc ccauccccaa agaucggcg uccacuggca aggccugggg aaaaccaggu 240
 cgccccuggc ccuauaugg gaauagagga cucggcuggg caggauggcu ccuguccccc 300
 cgaggcucuc gccccuccug gggccccacu gacccccggc auaggucgcu caacgugggu 360
 aaagucaucg acaccuaac guguggcuuu gccgaccuca uggguuacau ccccgucgua 420
 ggcgccccgc uuaguggcg cgccagagcu gucgcgcacg gcgugagagu ccuggaggac 480
 gggguuaauu augcaacagg gaaccuaccc gguuuccccc uuucuaucuu cuugcuggcc 540
 cuguuguccu gcaucaccgu uccggucucu gcu 573

<210> 3
 <211> 576
 <212> RNA
 <213> Hepatitis C virus

<220>
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 <222> (1)..(576)
 <223> E1 protein-coding sequence of hepatitis C virus genomic RNA derived from JFH-1 clone

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 aucacuuggc agcucgaggc ugcgguucuc cacguccccc ggugcguccc gugcgagaga 120
 guggggaaua cgucacggug uugggugcca gucucgcaa acauggcugu gcggcagccc 180
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 aucgucucgc cgaguacca cugguuugug caagaaugca auugcuccau cuaccucggc 360
 accaucacug gacaccgau ggcaugggac augaugaga acuggucgcc cacggccacc 420
 augauccugg cguacgugau gcgcgucccc gaggucauca uagacaucgu uagcggggcu 480
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<210> 4
 <211> 1290
 <212> RNA
 <213> Hepatitis C virus

<220>
 <221> misc_feature
 <222> (1)..(1290)
 <223> E2 protein-coding sequence of hepatitis C virus genomic RNA
 derived from JFH-1 clone

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<400> 4
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agccauggcc cucagcagaa cauucagcuc auuaacacca acggcaguug gcacaucaac      120
cguacugccu ugaauugcaa ugacuccuug aacaccggcu uucucgcggc cuuguucuac      180
accaaccgcu uuaacucguc agggugucca gggcgccugu ccgccugccg caacaucgag      240
gcuuuccgga uagggugggg caccuacag uacgaggaua augucaccaa uccagaggau      300
augaggccgu acugcuggca cuacccccca aagccgugug gcguaguccc cgcgaggucu      360
guguguggcc caguguacug uuucaccccc agcccgguag uagugggcac gaccgacaga      420
cguggagugc ccaccuacac auggggagag aaugagacag augucuuccu acugaacagc      480
acccgaccgc cgcagggcuc augguucggc ugcacgugga ugaacuccac ugguuucacc      540
aagacuugug gcgcgccacc uugccgcacc agagcugacu ucaacgccag cacggacuug      600
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gggcccuggc ucacacaaaa gugccugguc cacuacccuu acagacucug gcauuacccc      720
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cucacggccg caugcaacuu cacucguggg gaucgcugcg acuuggagga caggacag      840
agucagcugu cuccucuguu gcacucuacc acggaauagg ccauccugcc cugcaccuac      900
ucagacuua cgcguuuguc aacuggucuu cuccaccuuc accagaacau cguggacgua      960
caauacaugu auggccucuc accugcuau acaaaauacg ucguucgaug ggagugggug     1020
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uuguugggcc aggccgaagc agcauuggag aaguuggucg ucuugcacgc ugcgagugcg     1140
gcuaacugcc auggccuccu auauuuugcc aucuucucg uggcagcuug gcacaucagg     1200
ggucgggugg ucccuugac caccuauugc cucacuggcc uauggcccuu cugccuacug     1260
cuauggcac ugccccggca ggcuaugcc                                     1290

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 <211> 651
 <212> RNA
 <213> Hepatitis C virus

<220>
 <221> misc_feature
 <222> (1)..(651)

<223> NS2 protein-coding sequence of hepatitis C virus genomic RNA derived from JFH-1 clone

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 cugacccugg gggagccau gauucaggag uggguaccac ccaugcaggu gcgcggcggc 180
 cgcgauaggc ucgcgugggc cgucacuaua uucugcccgg gugugguguu ugacauuacc 240
 aaauggcuuu uggcguugcu ugggccugcu uaccucuuaa gggccgcuuu gacacaugug 300
 ccguacuucg ucagagcuca cgcucugaua aggguaugcg cuuuggugaa gcagcucgcg 360
 ggggguaggu auguucaggu ggcgcuaauug gcccuuggca gguggacugg caccuacau 420
 uaugaccacc ucacaccuau gucggacugg gccgcuagcg gccugcgcga cuuagcgguc 480
 gccguggaac ccaucaucuu caguccgaug gagaagaagg ucaucgucug gggagcggag 540
 acggcugcau guggggacau ucuacaugga cuucccgugu ccgcccga cu gggccaggag 600
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<210> 6
 <211> 1893
 <212> RNA
 <213> Hepatitis C virus

<220>
 <221> misc_feature
 <222> (1)..(1893)
 <223> NS3 protein-coding sequence of hepatitis C virus genomic RNA derived from JFH-1 clone

<400> 6
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 caguccuucc ucggaacaac caucucgggg guuuugugga cuguuuacca cggagcuggc 180
 aacaagacuc uagccggcuu acggggugcg gucacgcaga uguacucgag ugcugagggg 240
 gacuugguag gcuggcccag ccccccuggg accaagucuu ugagagccgug caagugugga 300
 gccgucgacc uauaucuggu cacgcggaac gcugauguca ucccggcucg gagacgcggg 360
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 cggggcgugg ccaauuccau cgaauucauc cccguugaga cacucgacgu uguuacaagg 540
 ucucccacuu ucagugacaa cagcacgcca ccggcugugc cccagaccua ucaggucggg 600
 uacuugcaug cuccaacugg caguggaaag agcaccaagg ucccugucgc guauggccgc 660
 cagggguaca aaguacuagu gcuuaacccc ucgguagcug ccaccuuggg guuuggggcg 720

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agcggcgccu augacaucan cauaugcgau gaaugccacg cuguggaugc uaccuccauu	900
cucggcaucg gaacgguccu ugaucagca gagacagccg gggucagacu aacugugcug	960
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cuucggggca ugggcuugaa ugccguggca uacuauagag gguuggacgu cuccauaaua	1200
ccagcucagg gagauguggu ggucgucgcc accgacgcc ucaugacggg guacacugga	1260
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cgagccucag gaauuguuga caguguagug cuuugugagu gcuacgacgc aggggcugcg	1500
ugguacgauc ucacaccagc ggagaccacc gucaggcuua gagcguauuu caacacgccc	1560
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cacauagacg cccacuuccu cucccaaaca aagcaagcgg gggagaacuu cgcguaccua	1680
guagccuacc aagcuacggu gugcgccaga gccaaaggccc cuccccguc cugggacgcc	1740
auguggaagu gccuggcccc acucaagccu acgcuugcgg gcccacacc ucuccuguac	1800
cguuuggggc cuauuaccaa ugaggucacc cucacacacc cugggacgaa guacaucgcc	1860
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 <211> 162
 <212> RNA
 <213> Hepatitis C virus

<220>
 <221> misc_feature
 <222> (1)..(162)
 <223> NS4A protein-coding sequence of hepatitis C virus genomic RNA
 derived from JFH-1 clone

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ggaugcguuu ccaucaucgg ccgcuugcac gucaaccagc gagucgucgu ugcgccggau	120
aaggaggucc uguaugaggc uuuugaugag auggaggaau gc	162

<210> 8

<211> 783
 <212> RNA
 <213> Hepatitis C virus

<220>
 <221> misc_feature
 <222> (1)..(783)
 <223> NS4B protein-coding sequence of hepatitis C virus genomic RNA
 derived from JFH-1 clone

<400> 8
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 auccaaggcu ugcugcagca ggccucuaag caggcccagg acauacaacc cgcuaugcag 120
 gcuucauggc ccaaagugga acaauuuugg gccagacaca uguggaacuu cauuagcggc 180
 auccaauacc ugcaggauu gucaacacug ccagggaacc ccgcgguaggc uuccaugaug 240
 gcauucagug ccgcccucac caguccguug ugcaccagua ccaccauccu ucucaacauc 300
 augggaggcu gguuagcguc ccagaucgca ccacccgcgg gggccaccgg cuuugucguc 360
 aguggccugg ugggggcugc cgugggcagc auaggccugg guaaggugcu gguggacauc 420
 cuggcaggau auggugcggg cauuucgggg gccucgucg cauucaagau caugucuggc 480
 gagaagcccu cuauggaaga ugucaucaau cuacugccug ggauccuguc uccgggagcc 540
 cugguggugg ggucaucug cgcgcccauu cugcgccgcc acgugggacc gggggagggc 600
 gcgguccaau ggaugaacag gcuuauugcc uuugcuucca gaggaacca cgucgccccu 660
 acucacuacg ugacggaguc ggaugcgucg cagcguguga cccaacuacu uggcucucuu 720
 acuauaacca gccuacucag aagacuccac aaugggauaa cugaggacug ccccauccca 780
 ugc 783

<210> 9
 <211> 1398
 <212> RNA
 <213> Hepatitis C virus

<220>
 <221> misc_feature
 <222> (1)..(1398)
 <223> NS5A protein-coding sequence of hepatitis C virus genomic RNA
 derived from JFH-1 clone

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 aaugggcuga ccucuaaaau guuccccaag cugcccggcc ucccuucau cucuugucaa 120
 aagggguaca agggugugug ggccggcacu ggcaucauga ccacgcgcug ccuugcggc 180
 gccaacaucu cuggcaaugu ccgcccuggc ucuaugagga ucacagggcc uaaaaccugc 240
 augaacaccu ggcaggggac cuuuccuauc aaugcuaca cggagggcca gugcgcgccg 300

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aaacccccca cgaacuacaa gaccgccauc uggagggugg cggccucgga guacgcggag      360
gugacgcagc augggugcua cuccuaugua acaggacuga ccacugacaa ucugaaaauu      420
ccuugccaac uaccuucucc agaguuuuuc uccugggugg acggugugca gauccauagg      480
uuugcaccca caccaaagcc guuuuuuccg gaugaggucu cguucugcgu ugggcuaau      540
uccuaugcug ucggguccca gcuucccugu gaaccugagc ccgacgcaga cguauugagg      600
uccaugcuaa cagauccgcc ccacaucacg gcgagacug cggcgcggcg cuuggcacgg      660
ggauaccuc caucugaggc gagcuccuca gugagccagc uaucagcacc gucgcugcgg      720
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cccaggagcg gguuuccacg ggccuuaccg gcuugggcac ggccugacua caaccgccg      960
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cccccccca agaaggcccc gacgccuccc ccaaggagac gccggacagu gggucugagc     1080
gagagcacca uaucagaagc ccuccagcaa cuggccauca agaccuuugg ccagcccccc     1140
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uccccuggug agccggcccc cucagagaca gguuccgccu ccucuaugcc ccccucgag     1260
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gauaccaccg ugugcugc                                     1398

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<210> 10
<211> 1773
<212> RNA
<213> Hepatitis C virus

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<220>
<221> misc_feature
<222> (1)..(1773)
<223> NS5B protein-coding sequence of hepatitis C virus genomic RNA
      derived from JFH-1 clone

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acaucaaaga gcgccucaca gagggcuaaa aagguaacuu uugacaggac gcaagugcuc     180
gacgcccauu augacucagu cuuaaaggac aucaagcuag cggcuuccaa ggucagcgca     240
aggcuccuca ccuuggagga ggcgugccag uugacuccac cccaauucugc aagauccaag     300

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uccgugugga aggaccuccu ggaagaccca caaacaccaa uucccacaac caucauggcc	420
aaaaaugagg uguucugcgu ggaccccgcc aaggggggua agaaaccagc ucgccucauc	480
guuuaccug accucggcgu ccgggucugc gagaaaaugg ccucuauga cauuacacaa	540
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gaggcgccg uacuggacuu auccaguugg uucaccgucg gcgccggcg gggcgacuu	1680
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guagggguag gcccuuccu acuccccgc cgg	1773

<210> 11
 <211> 239
 <212> RNA
 <213> Hepatitis C virus

<220>
 <221> misc_feature
 <222> (1)..(239)
 <223> 3' non-translated region of hepatitis C virus genomic RNA derived from JFH-1 clone

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uuuuuuuuuu uuuuuuuuuu uuuuuuuuuu uuuuuuuuuu cccuucuuu ucccuucuca 120
ucuuauucua cuuucuuuuc uggugggcucc aucuuagccc uagucacggc uagcugugaa 180
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<210> 12
<211> 9678
<212> RNA
<213> Hepatitis C virus

<220>
<221> misc_feature
<222> (1)..(9707)
<223> full-length Hepatitis C virus genomic RNA derived from JFH-1 clone

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cuucacgcag aaagcgccua gccauggcgu uaguaugagu gucguacagc cuccaggccc 120
ccccucccg ggagagccau aguggucugc ggaaccggug aguacaccgg aaaugccggg 180
aagacugggu ccuuucuuug auaaaccac ucuaugcccc gccauuuggg cgugcccccg 240
caagacugcu agccgaguag cguuggguug cgaaaggccu ugugguacug ccugauaggg 300
cgcuugcgag ugccccggga ggucucguag accgugcacc augagcaca auccuaaacc 360
ucaaagaaaa accaaaagaa acaccaaccg ucgcccagaa gacguuaagu ucccgggchg 420
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uccggucucu gcugcccagg ugaagaauac caguagcagc uacaugguga ccaaugacug 960
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gcccacggcc	accaugaucc	uggcguaacgu	gaugcgcguc	cccgagguca	ucauagacau	1380
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gaauugcaau	gacuccuuga	acaccggcuu	ucucgcggcc	uuguucuaca	ccaaccgcuu	1680
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cugcuggcac	uaccccccaa	agccgugugg	cguagucccc	gcgaggucug	uguguggccc	1860
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